

Ballistic Protection to Counter the Effects of the Improvised Explosive Devices (IED) Threat

The Individual Protection Directorate's (IPD) ongoing efforts in Ballistic Protection for the Individual Warfighter are developing technology to improve personnel armor. This is being accomplished by reducing the weight and/or increasing the level of protection. These developments can be applied to increase the level of protection offered to the individual to counter the effects of the Improvised Explosive Devises (IED) threat. Recently, IPD developed an extremity armor prototype (OTV-Extra) to increase the area of coverage offered by the Outer Tactical Vest (OTV), which is a part of the Interceptor Body Armor currently being fielded. The concept was submitted to the PM-Clothing and Individual Equipment for consideration and the upper arm module with slight modifications was adopted for limited fielding. The IPD concept built on the design that the 82nd did as an in-the field fix.

IPD's OTV-EXTRA prototype is designed for modularity and allows the user to select "modules" to be added to the Outer Tactical Vest (OTV). The concept consists of an upper arm module, upper shoulder module and a side torso module, which can be used independently or in conjunction with each other. The OTV-EXTRA is designed to have OTV levels of fragmentation and handgun protection and was demonstrated in a 1.1 lb/ft² KM2 material. Because of shortages in the higher performing ballistic materials, the three modules were designed to accommodate any soft ballistic materials at the appropriate areal density to perform similarly to those used in OTV. The side torso module was also designed with a dual use capability. It is designed to accommodate a ballistic component plus a 1-liter bladder for hydration purposes. The ballistic component demonstrated in the current torso module prototype is at the OTV fragments/handgun levels but can be upgraded to a higher fragment protective capability or to 7.62 × 39 ball protection via rigid inserts.



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Upper Arm Module & Side Torso Module



Rear Shoulder Module

